

# Abilities with Ctenophora or Hormiphora

Bsc Part -I, Zoology (H)

## (I) Abilities with Ctenophora :-

### (a) Resemblances with porifera :-

Both lack well developed mesoderm and central cavity opens out through osculum and mouth. Larvae resemble a Superficially.

### (b) Difference with porifera :-

Lacks spicules and choanocytes. Mouth does not correspond to the osculum. Lack Ostia on the surface of the body.

## (II) Abilities with Coelenterata :-

### (a) Resemblances with Coelenterata :-

Biradial Symmetry. Arrangement of parts along an oral-aboral axis. Absence of Coelom. presence of gelatinous mesoglea. Endodermal gastrovascular cavity with branches. Diffused nerve plexus. presence of statocyst. General lack of organ systems. Endodermal origin of gonads. absence of Nephridia.

### (b) Resemblances with Hydrozoa :-

Tentacles and stomodaeal Canal present. presence of aboral sense organs.

### ② Difference with Hydrozoa:-

Tentacle are contractile in Ctenophora. A basal sense organ is located superficially. Gonads develop in manubrium in Hydrozoa while these develop on the meridional canal in Ctenophores. Absence of combplates in Hydrozoa.

### ③ Resemblances with Anthozoa:-

Ciliated actoderm is probably a base runner of the ciliated band of Ctenophora. presence of well developed stomodaeum. Gonads developed in connection with endoderm and gametes pass out through mouth. In both embryonic gut is 4-lobed. Mesoglea is cellular in both.

### ④ Difference from Coelenterata:-

Oppositely placed tentacles. An aboral sensory region. absence of nematocysts. presence of 8-comb plates for locomotion. tentacles arrange with special adhesive cells called colloblast cells. Development of tentacle mesoderm upgrades it to triploblastic. Digestive system has anal pores. Determinate type of development.